



## ELECTRIC DOUBLE-DECKER MULTIPLE UNIT KISS

WESTbahn Management GmbH, Austria

Since 2011, WESTbahn has been operating Intercity services between Vienna and Salzburg using KISS double-decker multiple units on an open-access basis. Thanks to the excellent availability of the trains, WESTbahn scores highly on punctuality against the competition and has seen a sharp rise in passenger numbers. WESTbahn ordered 15 additional formations from Stadler in October 2019 to replace the 17 existing vehicles (eight six-car and nine four-car KISS trains), which were sold to Deutsche Bahn Fernverkehr AG. Stadler supplies a total of 15 six-car formations. The new double-decker multiple units are 150 metres long. The comfort level of all carriages meets first-class standards. The end carriage 600, with its 2+1 seating, is in Plus class. Thanks to the pressure-resistant design, a newly integrated fire detection system and a further bogie upgrade, levels of comfort are even higher. As such, the scheduled route extension to Germany, and possibly Switzerland, can go ahead. All intermediate carriages have a modern bistro where passengers can purchase refreshments, and there are separate toilets in all carriages. Furthermore, a PRM WC is located in the intermediate carriage 400. For the benefit of passengers, stewards are on board the trains throughout the journey. The trains reach a maximum speed of 200 km/h. The new vehicles will be delivered to WESTbahn in 2021.

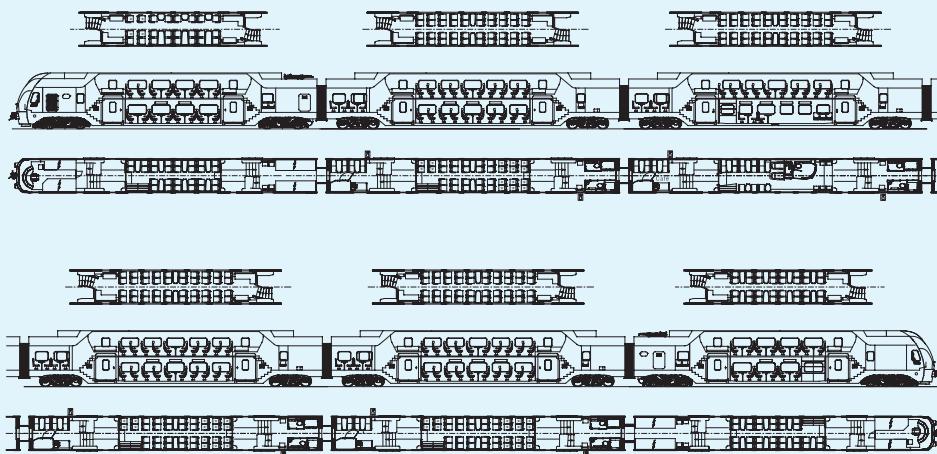
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## Technical features

### Technology

- Lightweight car bodies in integral aluminium design in accordance with the latest standards for crashworthiness (EN 15227) and car body strength (EN 12663)
- Motor and trailer bogies with pneumatic suspension
- Fire detection system in all areas
- Upgrade to ETCS BL3

### Comfort

- Air conditioning for passenger compartments and driver's cab, with fresh air circulating via the perforated ceiling, and a panel heating system
- Bright, passenger-friendly interior with individual scope for design
- Bistros in the intermediate carriages
- Twelve pressure-resistant passenger doors on each side for rapid passenger boarding and alighting
- Vacuum toilet system with wheelchair access
- Passenger WLAN in all passenger compartments
- Seat reservation system

### Personnel

- Ergonomically and comfortably designed working environment to prevent driver fatigue
- User-friendly passenger information system
- Driver's cab for operation with driver and assistant

### Reliability / Availability / Maintainability / Safety

- Redundant drive equipment with eight powertrains with water-cooled IGBT power converters
- Vehicle control system with train bus and diagnostics computer (CAN-open bus)
- Clear layout of passenger compartments for passenger orientation and safety

## Vehicle data

<b>Customer</b>	WESTbahn Management GmbH
<b>Operated networks</b>	Intercity Vienna-Salzburg
<b>Gauge</b>	1435 mm
<b>Designation</b>	ET 4010
<b>Supply voltage</b>	15kVAC, 16.7Hz
<b>Axle arrangement</b>	Bo'Bo'+2'2'+2'2'+2'2'+2'2'+Bo'Bo'
<b>Number of vehicles</b>	15
<b>Delivery</b>	2021
<b>Seats</b>	
First class PLUS	24
First class	461
Second class Other	8
<b>Tip-up seats</b>	13
<b>Standing spaces</b>	758
<b>Floor height</b>	
Low-floor at entrance	570 mm
Bottom deck	440 mm
Top deck	2,515 mm
<b>Entrance width</b>	1,400 mm
<b>Longitudinal force</b>	1,500 kN
<b>Length over coupling</b>	150,000 mm
<b>Vehicle width</b>	2,800 mm
<b>Vehicle height</b>	4,595 mm
<b>Bogie wheelbase</b>	
Motor bogie	2,500 mm
Trailer bogie	2,500 mm
<b>Driving wheel diameter, new</b>	920 mm
<b>Carrying wheel diameter, new</b>	920 mm
<b>Continuous power at wheel</b>	4,000 kW
<b>Max. power at wheel</b>	6,000 kW
<b>Starting tractive effort</b>	320 kN
<b>Starting acceleration, gross</b>	0.85m/s <sup>2</sup>
<b>Maximum speed</b>	200 km/h